

The background of the cover is a photograph of a classroom. A female teacher with dark hair, wearing a light green cardigan, is sitting on a wooden bench at the front of the room, smiling. In the foreground, the backs of several students' heads and shoulders are visible, some with their hands raised. A large chalkboard is in the background.

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RESEARCH DEVELOPMENTS

ISSN 1442-6625

No. 19 Winter 2008

## Staff in Australia's schools

Towards a national school  
funding model

Exploring scientific literacy

Staff in Australia's schools

Supporting international  
capacity building

Teach in America

Australian Council for Educational Research

ACER

# Quality teaching



**Professor Geoff Masters**  
Chief Executive Officer

*Earlier this year, the Business Council of Australia (BCA) called for reforms to the ways in which Australian teachers are recruited, prepared, developed and remunerated.*

Among the reforms the Business Council called for were:

- new approaches to recruiting the most talented, capable and committed people into the teaching profession;
- a new national certification system that recognises excellent teachers and provides the basis for a new career path for the profession;
- a new remuneration structure that rewards excellent teachers and demonstrates that, as a society, Australia values the teaching profession;
- a comprehensive strategy that supports teachers to continue to learn and improve their teaching throughout their careers; and
- the introduction of a national assessment and accreditation system for teacher education courses.

In calling for these reforms, the BCA collaborated closely with, and drew on the work of, ACER researchers Professor Steven Dinham, Dr Lawrence Ingvarson and Dr Elizabeth Kleinhenz. The BCA's report *Teaching Talent: The Best Teachers for Australia's Classrooms* followed a 2007 call from then BCA Chairman Michael Chaney for a significant increase in the salaries of teachers, including the payment of up to \$130 000 a year to teachers who meet high standards of practice.

Although there is widespread agreement on the need for new career paths for teachers that take more account of teaching competence and the quality of the work that individual teachers do, the questions of how best to assess teacher quality, how to recognise the achievement of high standards of teaching, and how to remunerate individuals who meet these high standards remain the subject of national discussion and debate. The BCA report makes a valuable contribution to these deliberations.

Other recent ACER research has provided a better picture of the teaching and leadership workforce in Australia. The Staff in Australia's Schools survey described in this issue of *Research Developments* by Dr Phillip McKenzie provides valuable information about the current demographic make-up of the teaching and school leadership workforce, qualifications and current course enrolments, reasons for joining the profession, current positions and responsibilities, professional learning experiences, future career intentions and issues being confronted by teachers and leaders in Australian schools.

A handwritten signature in blue ink that reads "Geoff Masters". The signature is fluid and cursive, with the first name "Geoff" and last name "Masters" clearly legible.



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Towards a national s





# school funding model



**Andrew Dowling**

Andrew is a Principal Research Fellow with ACER's Policy Analysis and Program Evaluation research unit.

*Australia needs a clear national model for school funding, based on need and applying equally across the sectors, but this does not seem likely, at least in the short term.*

**Andrew Dowling**

*examines the issues.*

In May 2008, the Federal Education Minister, Julia Gillard, referred to an ACER policy brief in a speech to the Association of Independent Schools (AIS) NSW and said that, "Australia's school funding system is one of the most complex, most opaque, and most confusing in the developed world." She went on to observe that "this lack of transparency has served to heighten the atmosphere of uncertainty and mutual suspicion which has characterised the politics of education in Australia over the last decade." The next day, she announced in the daily newspapers that the Federal Government would review its school funding system in 2010-11, in time for the next formal funding model for schools that begins in 2012 (the current four year agreement ends in 2008 but Labor promised during the election campaign that the next agreement, which runs from 2009-2012, would maintain the existing system).

Gillard repeated her wish to change the school funding system to make it more open in a later speech entitled, "A New Progressive Reform Agenda For Australian Schools." Gillard explained :

*There is a shyness in this debate from some who fear information will be misused and feed a flight from government schools to non-government schools. I believe this shyness is misconceived. .... When we can measure need and quantify how to make a difference we will be best placed to bring extra resources to bear to deliver on the fair go at school.*

However, Gillard has her work cut out for her if she wants to make school funding more transparent and report funding at the school level for both government and non-government schools.

## **The problem**

Part of the problem with Australia's current school funding system is the lack of consistency between jurisdictions. This makes the system unnecessarily complicated and it is difficult to understand how money is allocated to any individual school. Differences exist at level of government (state or federal), type of school sector (government or non-government), location (state or territory), accounting approach used (cash or accrual), and time period (financial or calendar year). Income flows into schools from several sources, but not in unison and not in a way that permits reporting at an individual school level in a timely manner.

A question often asked in Australia under the previous Federal Government was, "Is the Commonwealth giving too much money to non-government schools?" This is the wrong question to ask. It is a misguided question because there is no nationally agreed measure of need upon which to assess fairness in the first place. The Commonwealth has one measure while the states have their own measures, each of which is different from the others. The more fundamental question is, "On what basis are both levels of government, Commonwealth and state, giving money to all schools, government and non-government?"



Photos by Michael Anderson,  
Paramount Studios

The answer to this question is that there is no unified basis upon which governments fund schools and there is little public transparency in the reporting of these funds. Yet it is only when all sources of funding are compared against a national, agreed measure of need that the question can be asked, and disinterestedly answered, as to whether school funding is “fair.”

Rhetorical questions of fairness slide easily into a discourse about school funding that has been stuck in ideological grooves forged decades ago, between government and non-government school advocates.

A new debate is needed in Australia that asks questions less inflected by ideological commitment and more informed by current data that is comparable across sectors. This would involve questions such as:

- What is the relationship between school resources and student outcomes?
- What inputs have the most impact on student outcomes?
- What level of resources needs to be made available now to reach a desired goal at a particular point in the future?
- What do individual schools, irrespective of sector, actually need?

These questions cannot even begin to be answered in Australia at the present time, even though such answers would improve the efficiency and equity of the system.

In terms of efficiency, many members of the education community believe that the uses to which resources are put are more important than the amount of resources



Government School Advocates	Non-Government School Advocates
The function of taxation is to redistribute money to the neediest sectors of society.	Non-government schools are entitled to government support because of the taxes parents have paid.
Non-government schools are costing the government money.	Non-government schools are saving the government money.
If parents choose non-government schools they should pay for it, especially when they have forgone a free option.	Parents have a right to choose their child's education and to be supported in that right.
Government schools do most of society's heavy lifting.	Government schools get most of the government funding.

themselves. But it is difficult to confirm this hypothesis or to decide which resources have the most impact, if true. A necessary first step is having the data available to show the relationship between school resources and student outcomes. Such data do not exist in Australia at the present time.

In terms of equity, a common complaint is that government schools are being under-funded. Government schools tend to enrol students who cost more to teach. They are more likely to enrol students from lower socioeconomic backgrounds, Indigenous students and students with disabilities. In recent years, it appears they have been losing students who tend to cost less to teach (for example, those from higher socioeconomic backgrounds) to non-government schools. Yet it is not possible to establish precisely the extent of this phenomenon because most state governments cannot identify how much particular student groups cost to teach.

Let us assume, for an optimistic moment, that there is an agreed measure of need (such as the Commonwealth's socio-economic status (SES) model) applied equally across all schools and that all schools are funded according to this national, agreed measure of need. For this system to operate, it would be necessary to know in detail the funding and private income that each individual school, government and non-government, receives as well as their changing circumstances. This would lead to better understanding of the level of real need in individual schools, and be a central requirement of any national school funding model.

It has been argued that a national school funding model based on comparable and transparent data is not foreseeable, at least in the short term. As Professor Max Angus of Edith Cowan University has noted, simply providing information on the actual quantum of resources acquired by individual schools from all sources is a radical proposal at the present time (2007). Not only does this information not exist uniformly but some states are incapable of reporting at the school level. Most states cannot report financial information on a school-by-school basis, much less a student-by-student basis, even notionally. Most states do not make public either their funding rationale or the actual funds provided to individual schools. This is because most states have never been asked or required to do so. They provide broad information across all schools (eg, teacher salaries, redundancies, capital) but not the funds made available to individual schools or student groups.

However, the problems are not insurmountable. The introduction of similar funding methodologies at both state and Commonwealth levels and across school sectors would improve transparency and accountability as well as create a more sound footing for future funding debates. The fact that Gillard is moving in this direction is a very positive sign. But the problems are significant and she will need all the help she can get.

Dr Andrew Dowling's paper *Australia's School Funding System* (December 2007) can be found at [www.acer.edu.au/documents/PolicyBriefs\\_Dowling07.pdf](http://www.acer.edu.au/documents/PolicyBriefs_Dowling07.pdf) ■





# Exploring s





# scientific literacy



**Sue Thomson**

*Sue is a Principal Research Fellow in ACER's National and International Surveys research program.*



Photo by Terry Osborne

*Australia has a world-class education system, according to the latest results from the Programme for International Student Assessment, as **Sue Thomson** explains.*

In 2006, more than 14 000 15-year-old students from 356 schools across Australia took part in the third cycle of the Programme for International Student Assessment (PISA). Schools were randomly selected from all schools in Australia and about 50 students were randomly selected for participation in each school. These students represented Australia in what has become known as the world's biggest assessment, with a total of 400 000 students in 57 countries participating in PISA 2006, including all countries in the Organisation for Economic Cooperation and Development (OECD) and 27 others, ranging from Azerbaijan to Uruguay.

The OECD considers that mathematics, science and technology are so pervasive in modern life that it is important for students to be literate in each of these areas, as well as in reading. Clearly there are many more skills in which PISA is interested than could be measured in each three-yearly survey, so a different domain is chosen to be the focus for each assessment. Reading literacy was the major domain in PISA 2000, mathematical literacy in PISA 2003, and scientific literacy in the PISA 2006 assessment. In each cycle the two other domains are also measured, albeit not as comprehensively, while measurement of technological capabilities is embedded in each assessment.

The main questions driving PISA are focused on the future. How well are young adults prepared to meet the challenges of the future? Do they have the skills needed to adapt to rapid social change?





Other questions focus on schools and their influence on student outcomes. Are some ways of organising schools and school learning more effective than others? How equitable is education provision for students from all backgrounds?

To begin answering these questions, PISA asks students to apply their knowledge and skills to real-life problems and situations. Faced with problem situations that might occur in real life, can they analyse, reason and communicate their ideas effectively? Do they have the capacity and are they equipped with strategies to continue learning throughout their lives?

PISA 2006 results suggest that most Australian students are well equipped to meet these challenges. Overall, Australian students scored significantly higher than the OECD average in each of scientific, reading and mathematical literacy. Three countries significantly outperformed Australia in science, eight in mathematical literacy and five in reading. Australia's position has deteriorated from PISA 2000, when only one country outperformed us in reading and mathematics and two in science.

In addition to the mean scores for countries, PISA has developed proficiency levels to add meaning to performance. Descriptions were developed to summarise the kinds of scientific competencies associated with different levels of proficiency.





As a set, these describe growth in scientific literacy. At the highest level, Level 6, students can “consistently identify, explain and apply scientific knowledge and knowledge about science in a variety of complex life situations.” At Level 5, students are able to construct explanations based on evidence and arguments based on their critical analysis, as well as to use well-developed inquiry abilities, to link knowledge appropriately and to bring critical insights to situations.

At the lower levels of achievement, for example at Level 2, students may be able to identify the key features of a scientific investigation, recall single scientific concepts and information related to a current event, and use results of a scientific experiment represented in a data table as they support a personal decision. Students at Level 1, on the other hand, often confuse key features of an investigation, apply incorrect scientific information, and mix personal beliefs with scientific facts in support of a decision. Level 2 is defined as the baseline proficiency level: students performing below this level are at risk of being unable to participate effectively in the 21st-century workforce.

The good news is that the proportion of Australian students achieving in the highest two proficiency levels is as high as any in the world, other than Finland, where 21 per cent of students were at this level. In

other countries whose average score was higher than Australia's, the proportion of students in the higher proficiency levels was roughly the same – 16 per cent for Hong Kong-China and 14 per cent for Canada, compared to 15 per cent for Australia. The bad news, however, is that these countries have more success in getting students past the minimum levels, particularly Finland, where only 5 per cent of students were failing to achieve proficiency Level 2, compared with 13 per cent of Australian students.

These high levels of achievement are, however, an average over all Australian students, and unfortunately there are some areas of real inequity in our education system. Australia's lowest-performing students are most likely to come from Indigenous communities, geographically remote areas, and poor socioeconomic backgrounds. Around 40 per cent of Indigenous students, 23 per cent of students from the lowest category of socioeconomic status, and 27 per cent of students from remote schools are not achieving at the baseline proficiency level for scientific literacy defined by the OECD as sufficient in order to participate fully in the 21st-century workforce and society.

There are schools catering to students from remote, Indigenous and low-socioeconomic backgrounds that do perform well – and

these examples may provide the key to improvement across the entire education system. Provision of high-quality teaching and resources to all students, as modelled on examples of current best practice in Australian classrooms, is the surest way to raise the achievement level of Indigenous, remote and poor students.

The recent PISA results have shown that Australia does have a world-class education system – for most students – but that we have much work to do to address issues of inequity and ensure access to quality education for all students.

The full Australian PISA 2006 report, *Exploring Scientific Literacy: How Australia measures up*, by Sue Thomson and Lisa De Bortoli, is available at [www.acer.edu.au/pisanews](http://www.acer.edu.au/pisanews) ■



Staff in



# Australia's schools



**Phillip McKenzie**

*Phillip is Research Director of ACER's Transitions and Post School Education and Training research program.*

*A major survey of the teaching and leadership workforce in Australia's schools has provided a detailed demographic picture of the Australian teaching workforce and also highlighted a range of specific issues for future workforce planning.*

**Phillip McKenzie** describes the study and its results.

The *Staff in Australia's Schools* survey was conducted by ACER with the assistance of the Australian College of Educators (ACE) between October 2006 and April 2007. Around 20 000 teachers and school leaders were randomly selected and invited to participate in the study. The survey included primary teachers, secondary teachers, primary leaders and secondary leaders from Government, Catholic and Independent schools from all states and territories. Leaders were defined as Principals, Deputy/ Vice Principals and their equivalents in the different school systems. Final survey responses were received from 5209 primary teachers, 5394 secondary teachers, 1116 primary leaders and 1393 secondary leaders.

In addition to the survey, consultations were undertaken with key stakeholders around Australia regarding possible longer-term collaborative approaches to workforce data collection processes.

The *Staff in Australia's Schools* study was commissioned by the then Australian Government Department of Education, Science and Training and was supported by an Advisory Committee representing government and non-government authorities, professional associations and teacher educators. Results of the survey and consultations were published in two reports released in January 2008.

The survey component of the study gathered information on teachers' and leaders' basic demographics, qualifications and current study, motivation for becoming a teacher, current teaching position, professional learning activities, career intentions, job satisfaction and views on strategies to enhance attracting and retaining teachers.



The survey identified a number of issues in the school teacher and leader workforce that generated widespread media coverage when the results were released in late January this year. They included a shortage of senior teachers interested in becoming principals, principals covering teacher shortages by asking teachers to take subjects outside their personal areas of expertise and a looming shortage of teachers as retiring teachers leave the workforce.

One topic that has not received much attention since the report's release is the high level of satisfaction teachers and school leaders feel with their jobs. Overall about 80 per cent of teachers indicated that they were either satisfied (about 60 per cent) or very satisfied (20 per cent) with their current job. Participants had been asked to rate their satisfaction against a number of specific aspects of their work.

The highest level of satisfaction was noted in relation to teachers' working relationships with their colleagues, and their working relationships with parents/guardians. The areas of least satisfaction were the value society places on teachers' work and the amount of non-teaching work teachers are expected to do.

Although most school leaders also expressed a high level of job satisfaction, only about 50 per cent believed that school leadership positions were attractive to qualified applicants. Around 35-40 per cent of leaders said that such positions were unattractive and about 5 per cent that the positions were very unattractive.

Despite the generally high levels of satisfaction with teaching, career intentions were found to be somewhat fluid and difficult to predict with certainty. The majority of teachers said that schools as a whole have difficulty in retaining teachers in the profession.



This was believed to be the case by 66 per cent of primary teachers and 73 per cent of secondary teachers.

Particularly high proportions of early career teachers (those who have been teaching for less than five years) were unsure about how long they would keep teaching; indicating a lot of uncertainty about whether teaching will be a long-term career.

Results suggest that many early career teachers are not yet committed to teaching as a career. Younger teachers were more likely to indicate that they intend to leave teaching permanently before retirement, or that they were unsure about their career intentions. Only about one-third of primary teachers and one-quarter of secondary teachers aged 35 years or less indicated that they did not intend to leave teaching permanently before retirement. Around one-half of the teachers in this age band were unsure of their career intentions, which imply difficulties in projecting the number of replacement teachers that will be needed. On the other hand, by the time teachers reach their 50s it appears that few intend to leave before retirement or are unsure of their intentions.

For those teachers who were sure that they would leave teaching permanently prior to retirement, the most important factors were dissatisfaction with teaching and better opportunities outside of schools. "I never intended teaching to be a long-term career" was rated as either an important or very important reason by only 30 per cent of the primary teachers and 26 per cent of the secondary teachers who intended to leave, which implies that the most influential factors came into play after they had started teaching.

Finding ways to keep younger and early career teachers in the profession will be important to long-term workforce planning

and avoiding deepening shortages of teachers in the future.

Teachers who felt that schools have difficulty in retaining teachers in the profession were clear in the strategies that they felt would help to retain teachers: over 90 per cent either agreed or strongly agreed that more support staff, smaller class sizes, fewer student management issues, and a more positive public image of teachers would help to retain people in the profession. Among the strategies canvassed in the survey, higher pay for teachers whose students achieve specified goals was the least well supported: 25 per cent of the responding primary teachers and 30 per cent of the secondary teachers agreed or strongly agreed that this would help to retain teachers.

Teacher pay is currently a topic of considerable policy and media interest in Australia. The survey examined the importance of pay in attracting and retaining teachers to the profession in depth.

Results of the survey indicated that teachers do not enter the profession for the money or the public esteem of being a teacher. The most important factors in the decision to become a teacher were largely intrinsic and often altruistic, such as personal fulfillment; desire to work with young people and making a worthwhile social contribution.

However, money does seem to become a more important issue in retaining teachers in the profession. When asked for their views on a number of possible financial strategies for attracting and retaining teachers, the three most highly ranked were extra pay based on higher qualifications, extra pay based on years of teaching service, and successful completion of professional learning activities.

Less than half considered extra pay based on performance assessed against professional standards would be effective,





and less than 20 per cent considered that extra pay based on gains in student learning, would be effective in either attracting or retaining teachers. However, around one-fifth of principals indicated they were unsure about whether the strategy concerned would be effective, which suggests this is a policy area in which there is considerable uncertainty among school principals.

### Workforce data and planning processes

The second major component of the project examined longer-term approaches to teacher workforce data collections and planning processes in Australia. That component was based on extensive consultations with stakeholder groups in all states and territories between September and December 2007. The second part of the report summarised current research and information about the Australian school teacher and leader workforce. The results of the consultations are included in a separate report: *Teacher Workforce Data and Planning Processes in Australia*.

The consultations identified two broad priorities for teacher workforce data and

planning in Australia. The first is to ensure that individual decision makers have the data they need to make the best possible decisions for their circumstances. The second priority is that there needs to be a greater collaboration on workforce planning matters across Australia because of the common issues affecting teachers no matter where they work. Those seeking to improve teacher recruitment in any one state or sector will struggle to achieve satisfactory outcomes if not enough teachers have been trained or there are more attractive careers elsewhere.

One of the conclusions to come out of the study was the apparent need for a regular teacher and leader survey.

A survey such as the current *Staff in Australia's Schools* (SiAS) survey should be conducted on a regular, predictable cycle. Such a regular, high-profile data collection would enable schools, teachers and potential users to build it into their own planning, reduce the survey burden on schools and teachers by minimising the need for a number of different surveys from various organisations and, if well-resourced,

encourage high response rates and thereby improve data quality and use, including the analysis of any trends.

At present there is an array of different surveys from different organisations – a situation that can lead to survey fatigue and have a downward impact on the response rates achieved. However, if teachers and school leaders know that a high-stakes survey is imminent and they can prepare for it, they may be more likely to participate and provide valuable information that can be used to assist in future planning.

Additional findings and further information about this study can be found in the two-volume report: *Staff in Australia's Schools 2007* by Phillip McKenzie, Julie Kos, Maurice Walker & Jennifer Hong and *Teacher Workforce Data and Planning Processes in Australia* by Susanne Owen, Julie Kos & Phillip McKenzie. Both volumes can be downloaded from the Australian Government Department of Education, Employment and Workplace Relations website at

[www.dest.gov.au/sectors/school\\_education/publications\\_resources/profiles/sias2007](http://www.dest.gov.au/sectors/school_education/publications_resources/profiles/sias2007). ■

## STAFF IN AUSTRALIA'S SCHOOLS SNAPSHOT

- The average age of primary teachers is 43 years and secondary teachers 44 years.
- On average school leaders are 50 years old.
- 79% of primary teachers and 56% of secondary teachers are female.
- 86% of primary teachers and 81% of secondary teachers were born in Australia.
- Only 1-2% of primary teachers and primary school leaders and less than 1% of secondary teachers and school leaders are Indigenous.
- Most primary (79%) and secondary (88%) teachers hold a Bachelor or Honours degree.
- Teachers on average hold two qualifications each.
- A small proportion of primary (6%) and secondary (8%) teachers are currently studying for a qualification.
- 73% of primary and 82% of secondary teachers work full time.
- Most teachers earn between \$60,000-\$70,000 per year.
- On average full-time primary school teachers spend 48 hours per week on all school related activities and secondary teachers 49 hours. Full-time primary teachers report an average of 24 hours per week in face to face teaching and secondary teachers 20 hours.
- Most teachers decided to become teachers when studying at either secondary school (62% of primary and 39% of secondary) or tertiary education (10 and 24% respectively).
- Around 10% of teachers intend to leave teaching permanently prior to retirement while around half do not. Around one third are unsure.
- Only around 10% of teachers intend to apply for either a Deputy Principal or Principal position within the next three years.
- Overall about 80% of teachers indicated that they were either satisfied (about 60%) or very satisfied (20%) with their current job.

# Supporting international c





# capacity building



**Peter McGuckian**

*Peter is ACER's Director,  
International Development*

*ACER may be best known internationally for its involvement in large-scale student assessments, such as the OECD Programme for International Student Assessment (PISA) and the International School Assessment (ISA), but the organisation is also heavily involved in international capacity-building programs.*

**Peter McGuckian** explains.



Dr Jennifer Bryce and BEC staff

As well as high-profile testing programs, ACER also provides a wide range of tailored services for international clients including consultancies, development of assessment and curriculum materials, and professional development for teachers and education department officials.

ACER provides advice and training to assist policymakers and practitioners to better understand the role of assessment and to develop comprehensive programs that address local needs efficiently and effectively.

In recent years training in educational assessment and evaluation has been provided for participants from Fiji, Malaysia, Indonesia, the Philippines, Hong Kong, Cambodia, Bhutan, Sri Lanka, Malaysia, Singapore and the South Pacific.

Several recent examples saw ACER staff conduct workshops on higher-order thinking in Botswana, exam writing training for staff in Indonesia, and teacher profiling, also in Indonesia.

## **HOT in Botswana**

ACER Senior Research Fellow Dr Jennifer Bryce ran a series of workshops on higher-order thinking skills for the Botswana Examinations Council (BEC) in February 2008.

The purpose of the workshops was to assist the BEC to develop stimulating and challenging examination questions capable of testing students' higher-order thinking skills.

According to Dr Bryce, higher-order thinking skills (HOT) are essential for young people in school, higher education and the workplace.

"With the development of the internet, with knowledge being much more readily accessible, it's becoming more and more important to encourage students to use critical reasoning, to problem-solve, to evaluate material, and to be inventive. Obviously students do need to learn facts and their thinking needs to be based on facts, but higher-order thinking involves the understanding of information rather than the mere recall of information," she says.

Dr Bryce ran two workshops over two weeks. The first week was attended by 35 staff from the BEC responsible for preparing assessment procedures, training teachers to write exam items, and organising the exam writing itself. These officers undertook intensive training in what higher-order thinking involves and how to develop examination items that encourage and test for higher-order thinking.

The officers then assisted Dr Bryce in the second week to train a group of 170 teachers to write exam items. The workshop for this larger group consisted of plenary sessions, practical group sessions in which participants wrote items, and a process the locals called "shredding," where colleagues' work is critiqued and refined. Participants worked in subject groups in the key areas of mathematics and sciences, practical subjects, languages, including English, and social studies, including moral and religious education.

## **Exam item writing in Indonesia**

Exam writing workshops were held in Indonesia in February 2008.



Participants in the Educational Assessment Centre item writing workshop

Four ACER consultants travelled to Jakarta and Yogyakarta to run training as part of the Indonesian Basic Education Program. The workshops were aimed at developing the skills of trainers chosen by the Indonesian Educational Assessment Centre who will ultimately be training exam writers for the National Testing Program run in the country's 260 000 schools.

ACER consultants Mark Butler, Helen Lye, Greg Reid and Andrew Hay were involved in the project. The three-day workshops covered mathematics, science, social sciences and English language.

About 20 participants selected by the Educational Assessment Centre attended each of the four workshops. These included staff from the national examining body, university professors, teachers and other civil servants. Following these workshops, these participants will train others in their field.

The workshops provided a background to quality exam writing, including current international best practice, and case studies of testing instruments from other countries, including Australia, and from the Programme for International Student Assessment (PISA). The workshops gave participants a general introduction to writing high-quality items, as well as practice in working with colleagues to write and refine items, and an experience of training as a partnership between presenter and participants.

According to ACER Research Fellow Mark Butler, the workshops are a move towards a consistent, high-quality national testing system. "There are 33 different provinces in Indonesia, and each province currently writes its own tests, but takes items from a national pool. It's vital that all the items in the pool are of a very high quality," says Butler.

"The Educational Assessment Centre is interested in developing students' higher-order thinking, but we feel that if we focus

primarily on teaching exam writers to produce high-quality items, these items will naturally address a range of skills. The workshops focused on the principles underpinning quality item writing, followed by more subject-specific issues," he says.

### Teacher profiling in Indonesia

An ongoing project to profile Indonesia's 2.7 million teachers in 260 000 schools will result in more informed decisions regarding educational finances and staffing, says ACER Senior Research Fellow Dr Julie Kos.

The project is part of the Australia–Indonesia Partnership for Reconstruction and Development, which was created following the 2004 tsunami to fund reconstruction and development in Indonesia. Under this partnership, Australia provides extensive assistance for basic education in Indonesia with the aims of contributing to the long-term goal of Indonesian education reform, and increasing levels of educational attainment in disadvantaged areas, leading to longer-term employment and income-generating prospects.

The project aims to collect and analyse reliable, up-to-date data about the teachers, including age, gender, qualifications, length of service, teaching load, and professional development history. This information is being used by the Indonesian Ministry of National Education to develop and implement policies across the education sector.

ACER's role is to assist the Ministry to refine its collection methods, data cleaning and analysis, and reporting. Dr Kos, who has been working on the project for 12 months, says the information will allow resources and programs to be targeted more effectively.

"The data have shown us that in Indonesia, as in Australia, the ageing population is a problem, so we need to focus on getting

some younger teachers. It has confirmed that many teachers do not have a tertiary degree, and that quite a few did not complete high school. The lack of training is a huge problem, so the Ministry has implemented a certification process, and will commence the task of upgrading qualifications in the near future," she says.

"We will also be running a similar data collection project with the Indonesian Ministry of Religious Affairs, which is responsible for the religious school sector," she says.

ACER's work on data collection will be ongoing, and the Ministry is currently creating a national data collection team, of which Dr Kos will be a member. At the same time ACER will extend its involvement in Indonesia to include a number of longer-term research projects across the country, as well as student assessments, and training programs to build capacity of staff.

"We are looking at bringing some staff to Australia for training, or potentially sending ACER staff to Indonesia to train groups of teachers in schools," says Dr Kos.

These projects are just a few examples of ACER's international work. The key areas of ACER's current international work are: the collection, interpretation and reporting of student achievement at the system, school and classroom levels; the development of exam and selection materials for use internationally; system-level examination reform; and curriculum framework reform. This work is focused on capacity building to support the efforts of others – especially classroom teachers, school leaders, education consultants, regional and district staff, system leaders, parents, caregivers and learners themselves – to improve educational outcomes. ■





# Teach in America



*An alliance between the United States' Visiting International Faculty Program and ACER will give Australian teachers a new opportunity to develop careers abroad.*

The Visiting International Faculty (VIF) Program, the United States' largest cultural exchange program for teachers, has been placing Australian teachers in American schools for nearly 20 years, but the recent alliance with ACER aims to expand recognition for the skills and experience teachers gain abroad.

These teachers contribute to the brain gain for our education system, according to Jennie Hayes, the VIF Program Manager at ACER.

"The VIF Program provides an opportunity for teachers to work in an American school for two to three years and return here with a wealth of experience which will be hugely valuable to our system. We consider it a brain gain rather than a brain drain," she says.

"It's a chance for Australian teachers to work in a different educational system, expand their professional development and come back to Australia with a wider view of education and the world."

ACER's involvement in the program is a step towards greater formal recognition of this professional development.

"ACER's role, initiated in 2008, is to manage selection of teachers in Australia and to ensure recognition for the professional development that teachers gain through the program," says Hayes.

Jane Larsson, Director of International Partnerships at the VIF Program, sees great benefit in the alliance. "Undertaking a new adventure and experiencing a new culture, while learning and applying new skills, can be a wonderful personal growth experience," she says. "We know that exposure to a new system of education and a new country and culture is influential in developing teachers' perceptions and instructional abilities as they prepare students for their roles in the global marketplace".

"The endorsement and recommendation of ACER will ensure local recognition of the reputation of the program. Our collaboration with ACER, an organisation that has a deep commitment to improving learning, assures Australian teachers that they'll benefit from a high-quality experience in the VIF Program," says Larsson.

For more information about the program, visit [www.acer.edu.au/proflearn](http://www.acer.edu.au/proflearn) ■

### University students less engaged than US counterparts



Australian and New Zealand tertiary students are less engaged with their universities than their North American counterparts according to results from the first administration of the Australasian Survey of Student Engagement (AUSSE).

More than 9000 students from 25 Australian and New Zealand universities participated in the survey in 2007. The public report was released by ACER in early April.

Results revealed that, on average, Australian and New Zealand students found their study slightly less academically challenging than students in the US. They reported lower levels of contact with teaching staff and were less likely to have participated in activities described as “enriching educational experiences.”

The public report *Attracting, Engaging and Retaining: New Conversations About Learning* presents an overview of the AUSSE, key results and summary information on how institutions may use the results to enhance student engagement and learning. It is available from:

[www.acer.edu.au/ausse/](http://www.acer.edu.au/ausse/)

### Australian Country Background Report for the OECD Improving School Leadership Activity



A report prepared by ACER for the Australian Government Department of Education, Employment and Workplace Relations provides an overview of school leadership developments and issues in Australia. Australia is one of 22 countries taking part in the OECD's international project on school leadership. The Country Background Report was commissioned as part of Australia's contribution to the project. Prepared in 2006, it provides information and analysis on school leadership in Australia, including school governance, the links between leadership and student learning outcomes, the attractiveness of the leadership role, and training and professional development for school leaders. The report, released in January, is available from the DEEWR website at [www.deewr.gov.au](http://www.deewr.gov.au)

Further information on the OECD activity, including all the country background reports, is available from:

[www.oecd.org/edu/schoolleadership](http://www.oecd.org/edu/schoolleadership)

### Masters takes part in 2020 summit



ACER's chief executive Professor Geoff Masters took part in the 2020 Summit in Canberra in April. He was part of the Summit's early childhood and school education sub-stream. It identified the need for more seamless, national approaches to our most pressing educational challenges – including a greater focus on development in early childhood and on the needs of Indigenous students and students living in remote and disadvantaged areas of Australia.

A question posed at the Summit was: What would it take for Australia to develop the best education system in the world? Many ideas were proposed, but there was general agreement that keys included addressing the needs of disadvantaged and low-achieving students; ensuring that every child has access to an excellent teacher; investing more in education and training; and encouraging local partnerships between schools, businesses, parents and their communities.



### ACER tests help overseas universities select medical school candidates



ACER was recently awarded a contract to develop and manage the administration of a new undergraduate medical admissions test for University College Cork, University College Dublin, National University of Ireland Galway, The Royal College of Surgeons in Ireland and Trinity College Dublin. The test will be known as HPAT-Ireland. The first sitting of the test will take place in February 2009. The results of HPAT-Ireland will be combined with the Leaving Certificate Examination results to select students for admission to medicine at each of the five Irish universities. ACER is now responsible for all undergraduate and graduate medical admissions testing in Ireland.

The University of Southern Denmark (USD), meanwhile, administered uniTEST in May to assist with its selection of students for the medical program. The test was taken in Danish by approximately 650 students.

### BCA paper calls for teacher pay overhaul



*Teaching talent:* The best teachers for Australia's classrooms was released by the Business Council of Australia (BCA) on 26 May. It comprises a paper prepared for the BCA by Professor Stephen Dinham, Dr Lawrence Ingvarson and Dr Elizabeth Kleinhenz of ACER titled *Investing in teacher quality: Doing what matters most*, preceded by an introduction and recommendations authored by the BCA.

The paper called for Australia's best teachers to be paid almost \$130 000 as a key step in recognising their value to society and strengthening the teaching profession. The paper also recommended creating two new levels of teacher certification beyond initial registration, to allow the best teachers to be recognised as accomplished and leading teachers, as part of an overhaul of remuneration. The paper is available from the BCA website at [www.bca.com.au](http://www.bca.com.au)

### ICT Literacy report



The report of the National Assessment Program – ICT Literacy Years 6 and 10 was released in January by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA). It reports on a study conducted by ACER in 2005 involving approximately 7400 students from Years 6 and 10 in around 520 schools across Australia.

The report provided a comprehensive picture of the ICT literacy of Australian students in Years 6 and 10. Overall 49 per cent of Year 6 students attained the proficient standard and 61 per cent of Year 10 students reached or exceeded the proficient standard set for their year level. The assessment found that students are adept at using the basic elements of information technology but may need more knowledge and skill in applications that involve creating, analysing or transforming information.

*The National Assessment Program – ICT Literacy, Years 6 & 10 report*, published by MCEETYA is available online from [www.mceetya.edu.au/mceetya/](http://www.mceetya.edu.au/mceetya/)

### Assessing teachers for professional certification

A new book by ACER Principal Research Fellow Dr Lawrence Ingvarson and University of Auckland Professor John Hattie outlines the development over the first ten years of the National Board for Professional Teaching Standards (NBPTS) in the USA.

*Assessing Teachers for Professional Certification: The National Board for Professional Teaching Standards*, published by Blackwell, brings together, for international as well as non-specialist audiences, papers written by the key researchers involved in the development of National Board assessments between 1987 and 1997.

The authors argue that NBPTS provides an example of a well researched certification scheme for measuring teacher quality that can provide a service to governments and employers seeking a reliable indicator of teacher quality.

### Australian Education Review 53 released

Australian Education Review 53: *The Leadership Challenge: Improving learning in schools*, written by University of Tasmania researcher Professor Bill Mulford, was released by ACER in May.

The review draws on papers from ACER's 2007 Research Conference and many other contemporary sources within the leadership research literature to address and provide a focus for the issues facing Australian school leadership. It concluded that building communities of professional learners is the key to meeting Australia's school leadership challenge.

The review is available for download from the ACER website at [www.acer.edu.au](http://www.acer.edu.au). Print copies can be purchased from ACER Press.

### ICT terms described

A new set of terms used in education to describe information and communications technology (ICT) is now available through the Australian Thesaurus of Educational Descriptors (ATED) managed by ACER's Cunningham Library. The terms were developed through a collaborative project by education.au and ACER as part of the InspireED project. Around 80 new and revised terms have been described including accessibility, bandwidth, Blogs, digital divide, mobile learning, internet safety, and Wikis.

### Australian academics satisfied with jobs



The first results from a major international survey of the state of the academic profession show that the majority of Australian academics remain satisfied with their jobs despite reporting a decline in working conditions since the start of their careers.

Conducted by the University of New England's Centre for Higher Education Management and Policy (CHEMP) and ACER, the Changing Nature of the Academic Profession (CAP) project is the largest of its kind in the world. The international comparative study is running across 20 countries including Australia.

Almost two-thirds of Australian respondents believe working conditions in higher education have deteriorated since the start of their careers. Only 9 per cent felt they had improved.

Academics are critical of the levels of secretarial support, teaching support and research support staff. On the other hand they are happy with the physical facilities provided by Australian institutions including labs and libraries.

Further findings and background information to the Changing Nature of the Academic Profession (CAP) study, is available from [www.unen.edu.au/pdall/research/chemp/projects/cap](http://www.unen.edu.au/pdall/research/chemp/projects/cap)

### Learning for Leadership



Christine Cawsey and Michelle Anderson at the launch of *Learning for Leadership*

*Learning for Leadership* by Michelle Anderson and Christine Cawsey, published by ACER Press was launched by ACER's chief executive Professor Geoff Masters on 12 May.

Part of the Educational Leadership Dialogues series, *Learning for Leadership* explores how school principals can initiate and maintain programs and practices to develop the leadership potential of teachers in their school. It explains the theory behind the concept of educational leadership and then it tells the story of a school much admired for its leadership development. Together, the research and the case study present a strong argument for the introduction of similar programs in schools throughout Australia.

The book can be purchased through ACER Press online at [www.acer.edu.au/acerpress](http://www.acer.edu.au/acerpress) or contact customer service on 1800 338 402 or via email on [sales@acer.edu.au](mailto:sales@acer.edu.au)



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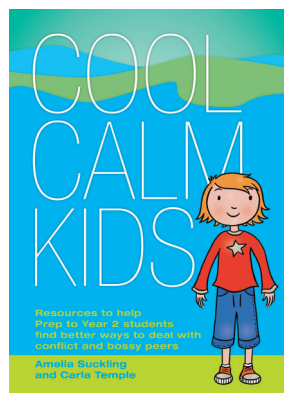
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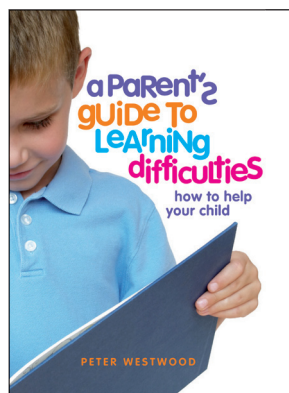
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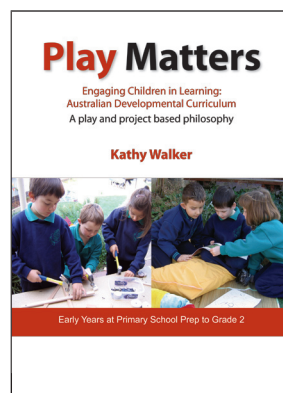
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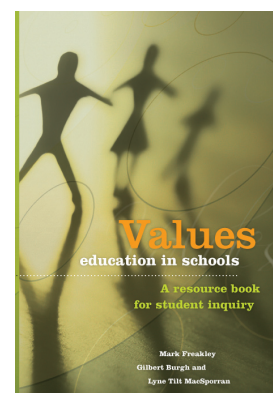
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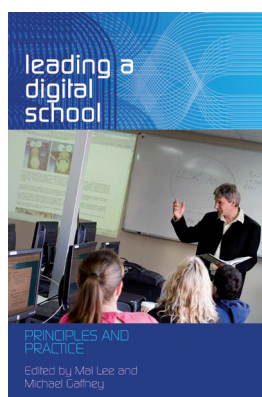
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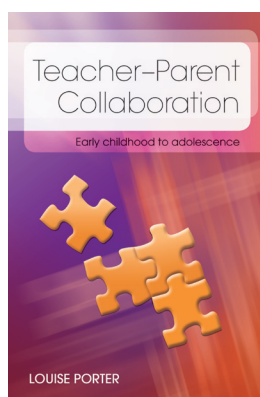
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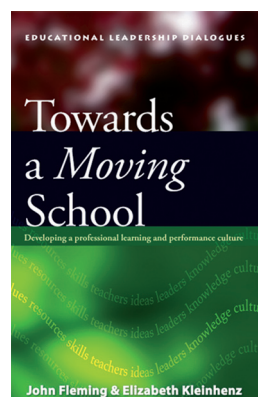
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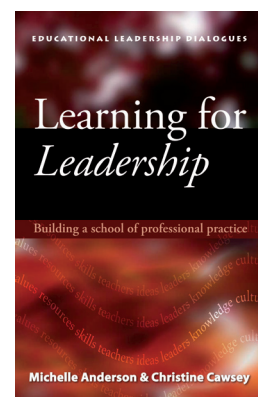
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